ATGGCCGTCATGGGGCGCCCCGAACCCTCCTCCTGCTACTCTCGGGGGCCCTGCCCTGACCCAGACCTGGGCGGGTGAGTGCGGGGTCGGGGAGGGAAACCGCCTCTGCGGGGAGAAG

CAAGGGGCCCTCCTGCGGGGGGGCGCAGGAGACCGGGGAGCCGCGCCGGGGAGGGGTCGGGCAGGAGGGTCGGGGAGTGGGGGCTCCATGAGCTCCATCTCCATGAGCTCCTTCTTCAC
                                                                                81*   92* 98*

ATCCGTGTCCCGGCCCGGCCGCGGGGAGCCCCGGCTTCATCGCCGTGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGGG
*123

CGCCGTGGATAGAGCAGGAGGCGGAGTATTGGGACGCAGGAGACACAGGAAATGAAGGCCCACCTCACAGACTGACCGAGCGAACCTGGGCGGGCTACTACAACCA
      238   268 *270   282*   292*
              *256

GAGCGAGGACGGTGAGTGACCCCGGCCCGGCGGCCAGTGACCCCCTCATCCCCCACGACGTCGCCCACAGTCTCCGGGTCCCACAGATCCGGAAGCGCGGGGA

CTCCGAGACCCCTTGTCCCGGGAGAGGCCCAGGCGCCCTTTACCCGGTTCATTTTCAGTTTAGGCCAAAAATCCCCCCGGGGT

GACCGCGGGGTCGGGGCCCAGGTTCTCACACCATCCAGATAATGTATGGCTGCGACGTGGGCCGGACGTGGGCGCTTCTCCCGCGGGTACCGGCAGGACGCCCTAGCGACGGCAAGGAT
                368*   *396   414*

TACATCGCCCTGAACGAGGACCTGCGCTCTTGGACCGGCGGGACATGGCCAGCTCAGATCACCAAGCGCAAGTGGGAGGCGGTCCATGCGGGGGAGCGAGGAGAGTCTACCTGG
*453   *502   527*   539*

AGGGCGGGTGCGTGGACGGGCTCCGCAGATACCTGGAGAACGGGAAGGAGACGCTGCAGCGCACGGGTACCAGGGGCCACGGGGCCCTCCCTGATCGCCTATAGATCTCCCGGGC
559 571

TGGCCTCCCACAAGGAGGGGGAGACAATTGGGACCAACACTAGAATATCACCCTCCCTCTG

FIGURE 1

Title: Method for HLA typing
Inventors: GUT et al.
Atty. Dkt. No. 065691-0447

ATGGGCGTCATGGGCGCCCCGAACCCTCCTCCTGCTACTCTCGGGGGCCCTGGCCCTGACCCAGACCTGGGCGGGGTCGGGGGTGAGTGCGGGGGGAGGGGAAACCGCGTCTGGGGGGGAGAAG

CAAGGGGCCCTCCTGGCGGGGGCCGGCCAGGACCGGGGAGCCGGCCCGCCGGGAGGAGGGTCGGGCAGGTCTCAGCCACTGCTCGCCCAGCGTCCACTCCCATGAGGTATTTCTTCAC

*123

ATCCGTGTCCCGGCCCCGGCCGGGGGAGCCCCGCGCTTCATCGCCGTGTGGCTACGTGGGCGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGCGGA

*238 *256 268* *270 282* 292*

CGCCGTGGATAGAGCAGGACGGGCCGGAGTATTGGGACGGGGAGTATGGGAGGACACCGGACTCACAGACCGAGATGTAGACCGAGCGAACCTGGGACCCTGCGCGGCTACTACAACCA

GAGCGAGGACGGTGAGTGACCCCCGGGGGGGGCCCAGTGACCCCGGGATCCTCCGGTGAGATGGCGGGAGCCGGGCGGGGA

CTCCGGAGACCCTTGTCCCGGGAGAGGCCCCAGGGCGCCTTTACCCGGTTCATTTCAGTTTAGGCCAAAAATCCCCCCGGGTGGTCGGGGCGGGGGTCGGGGGACTGGGCT

368* *396 414*

GACCGGCGGGGGTCGGGGGCCCAGGTTCTCACACCATCCAGATAATGTATGGCTGCGACGTGGGGCCGGACGGGCGCTTCCTCCGGCGGGTACCGGCAGGACGCCTACGACGGGCAAGGAT

*453 *502 527* 539*

TACATCGCCCTGAACGAGGACCTGCGCTCTTGGACCGCGGGCGGCCTCCGGGACTCAGATCACCAAGCGCAAGTGGGAGGCGGTCCATGCGGCCGGAGCTCTACCTGG

559 571

AGGGCCGGTGCGTGGACGGGCTCCGGCAGATACCTGGAGAACGGGGAAGGAGAGACGCTGCAGCGCACGGGTACCAGGGGCCTCGAGCGGTCCCTGATCGCCTATAGATCTCCCGGGC

TGGCCTCCCACAAGGAGGAGGGAGAGACAATTGGGGACCAACACTAGAGATATCACCCTCCCTCTG

FIGURE 2

CTAGAGAAGCCAATCAGCGTCGCCGCGGGTCCGGTCCCAGTTCTAAAGTCCGCAGGCACCCACCCGGACTCAGAGTCTCCTCAGACGCCGAGATGCTGGTCATGGGCGCCCCGAACCGTCCTC

CTGCTGCTCTCGGCGGGCGCCCTGGCCCTGACCGAGACCTGGGCCGTGAGTGCGGGGTCGGGGTGAGGGGAAATGGCCTCTGCCGGGGAGGAGCGAGGGCGAGGGCGCGGGGCGCAGGGACCT

GAGGAGCCGCGGGGAGGAGGGTCGGGCGGGTCTCAGCCCTCCTCCACCCCCAGGCTCCCACTCCATGAGGTATTTCTACACCTCCGTGTCCCGGCCCGGCCGCGGGGAGCCCCG

                                                                                          97*
                                                              206*   *222
CTTCAATCTCAGTGGGCTACGTGGACGACACCCAGTTCGTGAGGTTCGACAGCGACGCGCCGAGTCCGAGGAGGGAGCAGGAGGGCCCGAGTAT

        259*   272*   292*   302*
TGGGACCGGAACACACAGATTCTACAAGGGCCCAGGCACAGACTGACCGAGAGCCTGCGGGAACCTGCGGCCTACTACAACCAGAGCGAGGCCGGTGAGTGACCCCGGCCCGGGG

CGCAGGTCACGACTCCCCATCCCCCAGGTCGCCCGGGTCGCCCGAGTCTCCGGGTCCCCGAGTACGGGCCGCCTCCTCGAGGGGACCGGGCATCCCAGATCCGAGGCCGGGAGAGCC

CCAGGGCGGCGGTTTACCCGGTTTCATTTCAGTGGGATGAGGCCAAAATCCCGCGGGTTGGTCGGGGAGGGGGTCGGGGGGACTGGGCTCGGGGGCCGCAGGGTCTCAC

        362**363 *369   412*   418**419   *435
ACCCCTCCAGAGCCATGATGTACGGGCTGCCGACGTGGGGCGCCTCCTCCGCGGCGCTGCCCTGAGCGCAAGGATTACATCGCCCTGAACGAGGACCTGCGGCT

                                       527*   539*   *559   *571
CCTGGACCGCGCGGGACACGGGCGCTCAGATCACCCAGCAGGCCGCCGCCTGAGCGCCGAGGCGGCGAGAGCCTACCTGGAGGGCGAGTGCGTGGAGTGGCTCCGCAG

*583
ATACCTGGAGAACGGGAAGGACAAGCTGGAGCGCGCTGGTACCAGGGGCAGTGGGGAGCCTTCCCAGCCATCTCCTATAGGTCGGGGGGATGGCCTCCC

FIGURE 3

4/6

CTAGAGAAGCCAATCAGCGTCGCCGCGGTCGGAGTTCTAAAGTCGCAGCACCCACCCGGGACTCAGAGTCTCCTCAGAGCGCCGAGATGCTGGTCATGGCGCCCGAACCGTCCTC

CTGCTGCTCTCGGGGGGCCCTGGCCCTGACCGAGACCTGGGCCGGTGAGTGCGGGGTCGGGGGTGAGTGGGGAGGAGGGAAATGGCCTCTGCCGGGGAGGAGCCGAGGGGGCGGAGGACCT

GAGGAGCCGCGCCGGGGAGGAGGGTCGGGGCGGGGGTCTCAGCCCCTTCTCCCCAGGCTCCCCACTCCATGAGGTATTTCTACACCTCCGTGTCCCGGCCCGGGGGAGCCCCG

CTTCATCTCCAGTGGGCTACGTGGACGACACCCAGTTCGTGAGGTTCGACAGCGACGCCGCGGAGAGCCGCGGGCGCCGCGGGAGTAGAGCAGGAGGGGCCGGAGTAT   206*

TGGGACCGGGAACACACAGATCTACAAGGCCCCAGGCACAGACTGACCGAGCCTGCGCGGAACCTGCCGGGCTACTACAACCAGAGCGAGCCCGGTGAGTGACCCCGGCCCGGGG   272* 302*

CGCAGGTCACGACTCCCCATCCCCAGTACGGCCCGGGTCGCCCCGAGTCTCCGGGTCCGGAGATCCGGCCTCCCTGAGGCCGGGCAGACCCTCGACCGGCGAGAGCC

CCAGGGCGCGTTTACCCGGTTTCATTTCAGTTGAGGCCAAAATCCCCGGGCGGGGGTTGGTCGGGGGGGGCTGGGGGACTGGGCTGACGGCGGGCCAGGGTCTCAC

ACCCTCCAGAGCATGTACGGCGTGCCGACGTGGGGCCGGACGGGCGCCCTCCCTCCCGCGCGCGCATCACGCGTACGGCTACGACGGCAAGGATTACATCGCCCTGAACGAGGACCTGCCGCT   362**363 *369 412* *419

CCTGGACCGGCCCGGGACACGGGCGGCTCAGATCACCCAGCCAGGAGAGCCTACCTGGAGGGCCAGTGCGCGTGGAGTGGCTCCCGCAG   539* *559

ATACCTGGAGGAACGGGAAGGACAAGCTGGAGCGCGGCTGGTACCAGGGGCAGCCTTCCCCARGTCCTAGAGTCGCGGGGGATCGGCCTCCC
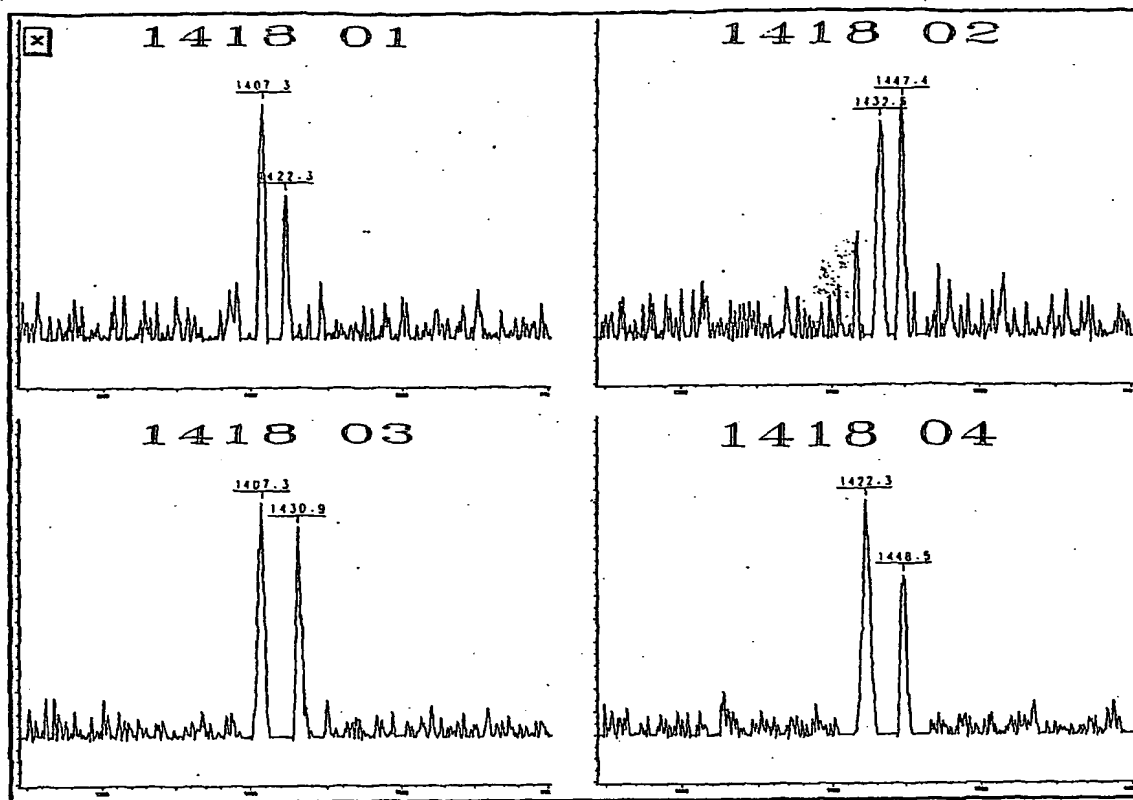
FIGURE 4

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                                                                          *125                                                         196**197
GAACACCCCGAGCGAGCACGTTTCTTGTGGCAGCTTAAGTTTGAATGTCATTTCTTCAATGGGACGGAGGCGGTGCGGTTGCTGGAAAGATGCATCTATAACCAAGAGAGTCCGTGC

  227*                       286*                    299*          *308
GCTTCGACAGCGACGTGGGGGAGTACCGGGCGGTGGTGACGGAGCTGGGCGGCCCTGATGCGAGTACTGGAACAGCCAGAAGACTCCTGGAGCGAGCGGGGCCCGCGGTGGACAC

   341*          *345
CTACTGCGACACAACTACGGGTGGTGATGAGCTTCAGAGTGCAGCGGCGAGGTGAGCGCGGCGGCGGCCCTGAGTCCCTGTGAGCGGAGAA
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FIGURE 5

FIGURE 6